What is claimed is:

1. A method for operating a video cassette recorder having a playback mode of operation for reproducing a video tape and a standby mode of operation wherein the video tape is not reproduced, the video cassette recorder including a microcomputer, at least one input device, a video signal processor generating a first video signal, a character generator receiving first control signals from the microcomputer for generating a second video [signals] signal including character data, a mixer receiving said first video [signals] signal and said second video signal and providing a mixed video signal to a first output terminal, and an audio signal processor providing an audio signal to a second output terminal, said first output terminal and said second output terminal being adapted to supply reproducible video signals and reproducible audio signals to an external television, said method comprising the steps of:

[(a)] when the video cassette recorder is in said standby mode of operation, receiving a lock function code from said input device;

[(b)] providing a code sequence to said microcomputer via said input device;

[(c)] passing said code sequence to said character generator for inclusion in said second video signal;

[(d)] when a last character of said code sequence is received by said microcomputer, immediately verifying the status of the video cassette recorder so as to determine whether said video cassette recorder is in a locked state or in an unlocked state;

[(f)] when said video cassette recorder is in said unlocked state, immediately generating a second control signal and a third control signal to terminate transmission of said first video signal to said mixer and said audio signal to said second output terminal, respectively;

[(g)] when said video cassette recorder is in said locked state, immediately comparing a stored previous code sequence with said code sequence;

[(h)] when said code sequence and said previous code sequence match, immediately terminating transmission of said second control signal and said third control so as to permit output of said first video signal and said audio signal; and

[(i)] when said code sequence and said previous code sequence match, passing different first control signals to said character generator for inclusion of an error indication in said second video signal.

2. A video cassette recorder having a playback mode of operation for reproducing a video tape and a standby mode of operation wherein the video tape is not reproduced, said video cassette recorder comprising:

a microcomputer;

at least one input device providing a coded sequence and a lock function signal to said microcomputer;

a video signal processor generating a first video signal;

a character generator receiving first control signals from the microcomputer for generating second video signals including character data;

a mixer receiving said first video signal and said second video signal and providing a mixed video signal to a first output terminal; and

an audio signal processor providing an audio signal to a second output terminal,

said first output terminal and said second output terminal respectively supplying reproducible video signals and reproducible audio signals to an external television,

said video cassette recorder receiving said lock function signal only in said standby mode of operation,

said microcomputer responding to a last character of said code sequence received by said microcomputer by immediately verifying the status of the video cassette recorder to determine whether said video cassette recorder is in a locked state and whether said video cassette recorder is in an unlocked state.

3. The video cassette recorder according to claim 2, further comprising:

a video muting circuit coupled between said video signal processor and said mixer [for], transmitting said first video signal; and

an audio muting circuit operatively coupled to said audio processor;

said microcomputer [for] immediately providing a second control signal and a third control signal to said video muting circuit and said audio muting circuit to terminate transmission of said first video signal to said mixer and said audio signal to said second output terminal, respectively, when said video cassette recorder is in said unlocked state;

said microcomputer [for] immediately comparing a stored previous code sequence with said code sequence when said video cassette recorder is in said locked state;

said microcomputer [for] immediately terminating transmission of said second control signal and said third control signal so as to permit output of said first video signal and said audio signal when said code sequence and said previous code sequence match; and

said microcomputer [for] supplying different first control signals to said character generator so as to include an error indication in said second video signal when said code sequence and said previous code sequence do not match.

4. A video tape recorder having a playback mode of operation for reproducing a video tape and a standby mode of operation wherein the video tape is not reproduced [and an on screen display system], said video tape recorder comprising:

a microcomputer responsive to input signals [for] from a keyboard or a remote control receiver for controlling the video tape recorder;

a video signal processor [for] receiving and processing for display [of] a first video signal played back from a tape;

an audio processor [responsive] to audio signals recorded on said tape [for] generating voice signals;

a character generating circuit [responsive] to character data output from said microcomputer [for] generating a second video signal for display;

a mixer [for] receiving said first video signal and said second video signal and for mixing said first and second video signals for display;

a video mute circuit [responsive] responding to a first control output of said microcomputer [for] by preventing said first video signal from being output to said mixer; and

an audio mute circuit [responsive] responding to a second control output of said microcomputer [for] by muting said voice signal;

said microcomputer [for] generating said first control output and said second control output for a period of time defined by a first input of lock key data followed by a secret code and a second input of said lock key data followed by a said secret code; and

said microcomputer [for] immediately terminating transmission of said first control output upon expiration of said period of time.

5. The video cassette recorder according to claim 4, said microcomputer [for] determining if there is a lock key data input from said keyboard or said remote control when said video tape recorder is in a power-standby status and [controls] controlling said character generating circuit to display a corresponding prompt message on a screen requesting a user to input a secret code one character at a time[.];

said character generating circuit [for] changing said displayed prompt message to correspond to a desired one of a sequence of characters of said secret code said user is to input following an input of a previous one of said character[.];

said microcomputer [for] storing each input character of said secret code if said input character corresponds to a numerical key of said keyboard or remote control,

said microcomputer [for] immediately checking said video cassette recorder to determine if said video cassette recorder is in a locked state after said user completes the inputting of the secret code,

said microcomputer [for] controlling said video mute circuit and said audio mute circuit responsive to said first control output and said second control output, respectively, to prevent output of said first video signal and to mute said voice signal if said video cassette recorder is determined [not] to not be in said locked state, and

said microcomputer [for] comparing said input secret code to a code previously stored if said video cassette recorder is determined to be in said locked state and, if there is a match, [for] determining that said period of time has expired and disabling said video mute circuit and said audio mute circuit.

6. The video tape recorder according to claim 5, said microcomputer for memorizing said secret code when it is determined that said system is not in said locked state.

7. A locking method for controlling an on-screen display system having a lock key on a keyboard or remote control, said method comprising the steps of:

checking for a key-data input signal from said keyboard or remote control during a system power standby mode of operation, and remaining in said system power standby mode of operation until said checking step identifies said key-data input signal as being indicative of an input from said lock key;

displaying prompts, on a screen, for a lock function setting state by employing an on-screen display function when the checking step identifies said key-data input signal as being indicative of an input from said lock key and sequentially storing and displaying, on said screen, a secret code input by a user in response to said prompts;

immediately determining whether the on-screen display system is in a locked state with said on-screen display system preventing viewing of any video program other than said prompts for said lock function setting state after the secret code is input to the on-screen display system;

storing the secret code as a lock code, clearing said screen of said prompts and said secret code displayed during the displaying step, and locking the on-screen display system when the determining step determines that the on-screen display system is not in said locked state;

making a comparison between the secret code and a stored lock code already in the on-screen display system when the determining step determines that the on-screen display system is in said locked state;

displaying an error message by utilizing the on-screen display function when said comparison determines that the secret code and the stored lock code do not match each other; and

clearing the secret code from the screen [and] , unlocking the on-screen display system [with said on-screen display system] and enabling said viewing when said comparison determines that the secret code and the stored lock code match each other.

8. A locking/unlocking method for a video tape recorder system having a microcomputer for controlling the video tape recorder system, a key matrix for transmitting user input information to the microcomputer, a remote control receiver for receiving remote control signals from a remote control transmitter and converting the signals into digital key data, a video signal processor for reproducing and outputting a video signal of a video program recorded on a video tape, a sound signal processor for reproducing and outputting a sound signal of the video program recorded on the video tape; an on screen display unit for receiving alphanumeric information data from the microcomputer and displaying an image signal of the alphanumeric information data on a display screen, a mixer for mixing the video signal from the video processor and the image signal from the on screen display unit and outputting the mixed signal to a TV receiver, a video mute circuit for muting the video signal from the video processor under the control of the microcomputer, a sound mute circuit for muting the sound signal from the sound processor, said method comprising the steps of:

[(a)] checking for an input signal, to said microcomputer, from a lock key of said key matrix during a system power stand-by state and remaining in said stand-by

state until said checking step determines that said input signal has been input to said microcomputer;

[(b)] displaying prompts for setting a lock state of a lock setting function using an on screen display function for displaying said prompts on said display screen when said checking step determines said input signal from said lock key has been input;

[(c)] storing in a memory and displaying on said display screen a secret code sequentially input by a user using the key matrix in response to said prompts;

[(d)] immediately determining whether the lock state of said video tape recorder system is a locked state or an unlocked state after a last character of said secret code has been input;

[(e)] storing the input secret code as a lock secret code, clearing the display screen and locking the video tape recorder system if the lock state is determined to be in said unlocked state;

[(f)] comparing the input secret code with a lock code previously stored in the microcomputer if the lock state is determined to be in said locked state;

[(g)] displaying an error message according to the alpha-numeric information data from said microcomputer when said comparing step determines that said input secret code does [doe]not match said previously stored lock code; and

[(h)] clearing the secret code from the display screen, and unlocking the video tape recorder system [if] when said comparing step determines that said input secret code matches said previously stored lock code.

* * * * *

Add B2